Claims:

1. A method to produce a plant tolerant to stress conditions comprising the steps of

(a) providing plant cells with a chimeric gene to create transgenic plant cells, said chimeric gene comprising the following operably linked DNA fragments

(i) a plant-expressible promoter;

(ii) a DNA region, which when transcribed yields an ParG inhibitory RNA molecule;

(iii) a 3' end region involved in transcription termination and polyadenylation;

(b) regenerating a population of transgenic plant lines from said transgenic plant cell; and

(c) identifying a stress tolerant plant line within said population of transgenic plant lines.

2. The method according to claim 1, wherein said parG inhibitory RNA molecule comprises comprising a nucleotide sequence of at least 20 consecutive nucleotides of the nucleotide sequence of the ParG gene present in said plant cell.

3. The method according to claim 1, wherein said parG inhibitory RNA molecule is comprises comprising a nucleotide sequence of at least 20 consecutive nucleotides of the complement of the nucleotide sequence of the ParG gene present in said plant cell.

4. The method according to claim 2 or 3, wherein said chimeric gene further comprises a DNA region encoding a self-splicing ribozyme between said DNA region coding for said parG inhibitory RNA molecule and said 3' end region.

5. The method according to claim 1, wherein said parG inhibitory RNA comprises a sense region comprising a nucleotide sequence of at least 20 consecutive nucleotides of the nucleotide sequence of the ParG gene present

in said plant cell and an antisense region comprising a nucleotide sequence of at least 20 consecutive nucleotides of the complement of the nucleotide sequence of the ParG gene present in said plant cell, wherein said sense and antisense region are capable of forming a double stranded RNA region comprising said at least 20 consecutive nucleotides.

6. The method according to any one of claims 1 to 5 wherein said stress conditions is selected from heat, drought, nutrient depletion, oxidative stress or high light conditions.

7. The method according to any one of claims 1 to 6, comprising further crossing said transgenic plant line with another plant line to obtain stress tolerant progeny plants.

8. A method to produce a plant tolerant to stress conditions comprising the steps of:

(a) isolating a DNA fragment of at least 100 bp comprising a part of the parG encoding gene of said plant;

(b) producing a chimeric gene by operably linking the following DNA fragments;

(i) a plant expressible promoter region;

(ii) said isolated DNA fragment comprising part of the parG encoding gene of said plant in direct orientation compared to the promoter region;

(iii) said isolated DNA fragment comprising part of the parG encoding gene of said plant in inverted orientation compared to the promoter region;

(iv) a 3' end region involved in transcription termination and polyadenylation;

(c) providing plant cells with said chimeric gene gene to create transgenic plant cells

(d) regenerating a population of transgenic plant lines from said transgenic plant cell; and

(e) identifying a stress tolerant plant line within said population of transgenic plant lines.

9. A DNA molecule comprising

(i) a plant-expressible promoter;

(ii) a DNA region, which when transcribed yields a ParG inhibitory RNA molecule;

(iii) a 3' end region involved in transcription termination and polyadenylation.

10. The DNA molecule according to claim 9, wherein said DNA region comprises a nucleotide sequence of at least 21 to 100 nucleotides of a nucleotide sequence encoding a protein comprising the amino acid sequence of SEQ ID No 1, 2 or 16 or at least 21 to 100 nucleotides of a nucleotide sequence of SEQ ID 3, 4, 15 or 23.

11. A plant cell comprising the DNA molecule of claim 9 or 10.

12. A plant consisting essentially of the plant cells of claim 11.

13. A process for producing stress tolerant plants, comprising the step of further crossing a plant of claim 12 with another plant.

14. Seeds and propagating material of a plant according to claim 12, comprising the chimeric gene of claim 9 or 10.

15. Plants obtainable or obtained by the process of claim 8.

16. A method to produce a plant tolerant to stress conditions comprising the steps of

(a) providing plant cells with a chimeric gene to create transgenic plant cells, said chimeric gene comprising the following operably linked DNA fragments

(i) a plant-expressible promoter;

(ii) a DNA region, which when transcribed yields an ParG inhibitory RNA molecule, said DNA region comprising a nucleotide sequence of at least 21 to 100 nucleotides of a nucleotide sequence encoding a protein comprising the amino acid sequence of SEQ ID No 1, 2 or 16 or at least 21 to 100 nucleotides of a nucleotide sequence of SEQ ID 3, 4, 15 or 23;

(iii) a 3' end region involved in transcription termination and polyadenylation;

(b) regenerating a population of transgenic plant lines from said transgenic plant cell; and

(c) identifying a stress tolerant plant line within said population of transgenic plant lines.

17. A method to produce a plant tolerant to stress conditions comprising the steps of

(a) subjecting a plant cell line or a plant or plant line, to mutagenesis;

(b) identifying those plant cells or plants that have a mutation in an endogenous ParG gene;

(c) subjecting the identified plant cells or plants to stress conditions;

(d) identifying plant cells or plants that tolerate said stress conditions better than control plants.

18. A method to produce a plant tolerant to stress conditions comprising the steps of

(a) selecting a plant cell line or a plant or plant line which is resistant to a ParG inhibitor;

(b) identifying those plant cells or plants that have a mutation in an endogenous ParG gene;

(c) subjecting the identified plant cells or plants to stress conditions;

(d) identifying plant cells or plants that tolerate said stress conditions better than control plants.

19. A stress tolerant plant cell or plant comprising a mutation in an endogenous ParG gene.